

ABSTRACT OF THE DISCLOSURE

An optical fiber chromatic dispersion distribution measuring apparatus for measuring the chromatic dispersion distribution of an optical fiber under test comprising two light sources 1, 2 at least one of which can change wavelength thereof, wherein light beams having different wavelengths from each other and emitted from the two light sources are inputted to the optical fiber under test 7 to measure a four-wave mixing light beam generated by interaction between the two light beams by optical time domain reflectometer (OTDR) 9; wherein an optical bandpass filter 8 having a fixed center wavelength is provided at a previous stage of the optical time domain reflectometer (OTDR); and wherein a coherence controller 10 for controlling coherence of at least one of the light beams outputted from the two light sources 1, 2.